

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claim 5 is currently being amended. Support for this amendment can be found at least in the specification on page 6, line 3 to page 7, last line. Claim 7 is being added. Support for new claim 7 can be found at least in the specification on page 1, lines 3-8. No new matter has been added.

This amendment adds and changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 5-7 are now pending in this application.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claim 5 has been amended to delete the language referred to in the Office Action, and applicant submits that the rejection under 35 U.S.C. § 112, first paragraph, has been overcome.

Rejections under 35 U.S.C. § 103

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,665,275 to Kobayashi et al. ("Kobayashi") in view of U.S. Patent No. 5,507,670 to Aketagawa et al. ("Aketagawa"). Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 2002/034642 A1 to Takahashi et al. ("Takahashi") in view of Kobayashi. Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi and Aketagawa, and further in view of one of U.S. Patent No. 4,364,786 to Smith ("Smith") and U.S. Patent No. 5,867,236 to Babuka ("Babuka") or JP 06118202 to Inoue ("Inoue"). Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi and Kobayashi, and further in view of Smith and Babuka or Inoue. Applicant respectfully traverses these rejections for at least the following reasons.

Independent claim 5, as amended, recites “wherein the fluorine-based organic compound has a thickness of about 10 μm , and wherein the fluorine-based organic compound is such a compound that the deterioration of the optical member due to adhesion distortion is hardly observed when a KrF laser of deep UV region at 248 nm is emitted for 148 hours at an output of 3 W/cm^2 .” None of the references applied in the rejection of the claims suggests at least this feature of claim 5 where the deterioration of the optical member due to adhesion distortion is hardly observed when a KrF laser of deep UV region at 248 nm is emitted for 148 hours at an output of 3 W/cm^2 .

For example, while Takahashi discloses that irradiating his optical member with an excimer laser at 248 nm and 3 W/cm^2 hardly changes the transmittance of his fluorinated grease (paragraph [0036]), Takahashi does not disclose that the irradiation is such that deterioration of the optical member due to adhesion distortion is hardly observed. Moreover, the burden of establishing inherency is on the Patent Office, and the Patent Office has not met its burden of establishing the inherency of such an effect in Takahashi.

Moreover, the Patent Office has not provided a properly articulated reason for either the combination of Kobayashi and Aketagawa, or Takehashi and Kobayashi in the manner suggested by the Patent Office. Kobayashi discloses an optical device suitable for an anti-vibration optical system when disposed as a part in a photographic system, such as a still camera or a video camera, so as to correct an image deviation due to vibration of the photographic system (col. 1, lines 14-19). Such problems with vibration would be expected in a still camera or video camera where a user would operate the camera in a hand-held fashion. By contrast, the optical systems of Aketagawa and Takehashi are directed to optical exposures system in the context of semiconductor processing which are not hand-held systems, and would not be expected to suffer from the same vibrational problems. Thus, the Patent Office has not provided a properly articulated reason for why one skilled in the art would have combined the optical system of Kobayashi, directed to still camera or video camera systems subject to vibrational problems, with the optical exposures systems for semiconductor processing as in Aketagawa or Takehashi.

Moreover, the Patent Office provides no properly articulated reason why one skilled in the art would include a lens of a semiconductor exposure system for UV exposure in a still camera or video camera, or that such a lens would be appropriate. The plural lenses of Takahashi and Aketagawa of quartz and fluorite are designed for UV exposure, such as would be appropriate for an optical system for semiconductor processing. By contrast, Kobayashi discloses an optical system for a still or video camera, where such systems do not have the need for transmission in the UV, and where simpler optical lens components would be desired. The Patent Office has provided no proper reason for why one skilled in the art would have included a UV transmissive lens in the still or video camera system of Kobayashi.

The Patent Office on page 4 cites to Aketagawa at col. 8, lines 1-18 for allegedly disclosing the advantage of using a quartz and fluorite lens because doing so enables the assembled optical member to be used in different optical systems. The optical systems discussed in Aketagawa, however, are optical exposure systems in the UV for semiconductor processing, not still or video camera systems, which are not designed for UV.

Further with respect to Takahashi and Kobayashi, the Patent Office has provided no properly articulated reason for providing the annular member 33 comprising annular films 33a and 33b as a sealant for the Takahashi optical member. The purpose of the annular member 33 of Kobayashi is to provide a material having the flexibility sufficient to allow its circular plates 31 and 32 to move relative to each other (col. 8, lines 37-41). This is consistent with the use of the Kobayashi optical device as an anti-vibration optical system appropriate as a part of a still or video camera, which might be expected to suffer from hand held vibrations. By contrast, there is no suggestion that the Takahashi optical member would need such an anti-vibration optical system.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein.

Dependent claim 6 is patentable for at least the same reasons as claim 5, from which it depends, as well as for further patentable features recited therein. Claim 6, as amended, recites "evaporating a fluoride on a surface of the plural lenses prior to filling the fluorine-

based organic compound between the plural lenses.” By contrast, neither Smith nor Babuka disclose evaporating a fluoride, but merely disclose applying a fluoride as an etchant to roughen the surface. Moreover, the MgF_2 film in Inoue is merely for anti-reflection, but the Patent Office has not established that such anti-reflection properties would be transferred to the optical component materials of Takahashi, Kobayashi and Aketagawa.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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